

INFLUENCE OF NEWLY-BUILT HOUSES
ON THE HEALTH OF THEIR OCCUPIERS.

SIR,—In your journal of to-day, I find an article headed as above. Respecting science as I do, I fear we are upon the eve of running riot upon theory, in lieu of attaching due value to the importance of experience. I beg to differ from the propositions of Dr. Sastro, and also not only from these propositions, but from the propriety of the frightful outlay consequent upon the experiments of another doctor touching the ventilation of public buildings. Is the profession to be silent, and trust to mere theorists to alarm the public as to the occupation of newly-erected residences? From twenty-five years' experience in my profession, I will endeavour to grapple with the doctor's objections, without harassing the minds of your readers with the scientific terms used in his argument, never having met with the "pale anæmic face, wasted muscles, decrease of strength, sluggishness of small pulse, which symptoms frequently terminate in external or internal dropsy." And then follows a vocabulary of nearly all the ills that human nature is heir to; of course, intended as consequent upon inhabiting a newly-erected residence. Without attempting to controvert the learned doctor's scientific terms, I will appeal to the experience of your practical readers whether I have upon me the charge of homicide, for having constantly placed parties in the occupation of their dwellings within six months from the commencement thereof? Admitting the doctor's correctness as to the medium of exhalation, evaporation, &c., the practical question will be, what is the result in newly-erected dwellings? My test, without any scientific reasoning is this, pass the nail of any digit over the plastering, if not the slightest impression remains, proceed to papering; which involves the fact, that you are about to append an article partaking so much in its construction and in that by which you attach it of the medium for exhalation, that the evidence would be immediate. I do not deny the doctor's proposition that dampness may exist, but assert from practical experience, that exhalation goes on (if at all) in connection with the external lighter atmosphere: I challenge the doctor to hang up a blanket or woollen cloth in a room so circumstanced. Then as to the effects of evaporation from the accredited baneful influences of the component parts used in painting; by the common practice of the painter to put a pail of water in a room newly painted (the colour not being hardened) a deposit is the result; try it again when the paint is hardened, and no smell remains to offend the olfactory nerves,—no deposit is the result.

I would refer the doctor to the evidence we all have of the operation of nature upon freestone—while, in the quarry may be cut with a knife—exposed to the atmosphere becomes hardened; so I hold it with plastering or paint; offensive and deleterious in their component parts, when amalgamated and with this operation of nature's incrustation who will limit its commencement of resistance to exhalations? In a well-cleaned house (before occupation) I am at a loss to imagine where the baneful influence can arise from floating particles of lime.

With respect to ventilation, it has been my privilege very recently to discuss the question with two members of our profession, one of accredited, high, and long standing, who tells me some twenty years since he was called in to ventilate a large public building, that the system he adopted had been most successful, and I only waited (and still only wait) his offer to take me over the building to trouble your readers with the mode. The same modesty that has prevented him intruding on the public, induced the remark in our discussion, that having no title (doctor or otherwise), as an humble individual he was passed over. My younger friend has a scheme for ventilating houses in their construction, *nolens volens*, as to the occupier. I trust his modesty will not interfere with giving the result (through your columns) of his inquiry to the public.

Other personal occupations have prevented my intention of sending you counsel's opinion upon the construction to be put upon the clause in the new Buildings Act, touching "finishing fit for occupation" houses "already built," which the dictum of the referees in their circular rendered imperative; suffice it

for the moment to state that counsel's opinion is thoroughly with my case, viz. the clause is permissive without penalty, ergo, "cover in, finish when you please," as in respect of works commenced since 1st January last there is no controlment of period for finishing, the contrary in respect of works commenced previously (intended as of benefit) would be an absurdity.

I am, Sir, &c.

GREENWAY ROBINS.

Peckham, 26th July, 1845.

IMPROVEMENT OF DWELLING-HOUSES.

SIR,—In the hundredth number of your journal you state that one great object of "THE BUILDER" is to disseminate practical knowledge, and to introduce sound principles in building. "The Improvement of dwelling-places is a subject of national importance." Every one must admit the necessity of the former remark, which stands in need of your powerful aid, and with the latter I perfectly coincide. I had hoped that during the present session of Parliament some general measure would have been introduced by the Government for the purpose of improving the construction of buildings, and the general sanitary condition of towns. Although notice has been given of some such a measure by Lord Lincoln,* I fear the bill will have to be delayed another session, as the early part of the present has been lost in fruitless discussion, and now important measures that effect the vital energies and well being of every member of the community are postponed in consequence, forsooth, of that great pressure of business which ought to have been transacted in the early part of the session. With such a mass of strong and unconfutable evidence before them, collected by the useful and laudable exertions of that eminent body of men, the Health of Towns' Commissioners, containing such startling and astounding facts, our legislators, with all due deference, I conceive are not discharging their duty either to themselves or to the country, by allowing a session to pass without an effort to remedy the evil which undoubtedly presses equally on all, both high and low, rich and poor. As the lives of many thousands of our fellow-creatures are annually sacrificed from the unhealthiness of our towns, and as the average duration of life of many thousands more is materially shortened from the same cause, which is capable of remedial measures, surely we have as great a right to expect the attention of the legislature drawn to the subject as to that of the protection of dogs, and others of the brute creation. A general building and improvement act for towns is much required, as the want of it must be evident to every one at all acquainted with the state of the towns of this country. In most of them you find the streets narrow, crooked, and inconvenient; the houses and shops inefficiently and irregularly built, without taste or architectural pretensions, or the slightest attempt at uniformity in design. A building and improvement act would enable us to lay out and improve our streets with science, taste, and convenience, our dwellings might be constructed substantially, and with some degree of architectural style and embellishment, and so arranged and classified, as to suit every grade of the community. The buildings ought to be erected under the supervision of a qualified architect, who should be appointed for that purpose (similar to your district surveyors); they would then be well and substantially constructed, and present a striking contrast to the faulty, cracked, and distorted appearance of many of our modern buildings, that are erected to suit the whim or caprice of some speculative individual or adventurous builder. Much difference of opinion appears to exist relative to the nature and operations of the Metropolitan Buildings Act, but I think every right-minded and unprejudiced person must acknowledge that it is an exceedingly useful measure, and one that is calculated to effect great public benefit. An extension of its principles throughout the country is ardently to be hoped for. At present, little attention is paid to the ventilation and drainage of houses; these are most essential elements in the salubrity of a town, and the preservation of health. There are but few towns that have any system of drainage; some are drained partially and

imperfectly, and others not at all: this arises in consequence of having no general measure for that purpose; and if it is to be left to the wish of the inhabitants at large, it would never be carried into effect at all, because the great majority of persons are unwilling to add to their local burdens; and as a town cannot be healthy without an efficient system of sewerage, constructed on correct and scientific principles, the expense, I consider, should be borne by the owners of the property, as they should be required to render their houses not only habitable, but healthy also.

A good supply of water to towns is of the utmost importance; for next to the air we breathe, water is the most indispensable agent in vital economy. There are but few towns in this country that have water-works established, and many have to depend upon the precarious supply to be obtained from rivers, brooks, or wells; the former being surface water, is rendered unfit for consumption by the impure matter it contains in solution, the latter from pernicious matter that percolates through the earth, more particularly if the system of drainage is bad. The expense of water-works even to small towns, in the shape of rates, would fall comparatively light upon the inhabitants, and the sums annually paid in sickness for medicine, &c., required in consequence of the impure and deficient state of the supply of this necessary of life, would amply compensate for the first cost of the works and the supply, as well as filter the water, and rendering it pure and fit for human consumption. More diseases are engendered from this cause than we are generally disposed to admit of, or than we dream of in our philosophy. In the event of fire, water-works are essential, as the means of checking the ravages of that devouring element, as it is rarely convenient to obtain an immediate and sufficient supply from any other source; and when we contemplate the awful destruction of property that has taken place lately both in this country and abroad, I think every precaution should be used, and every effort made, if not to remove the cause, at least to lessen the disastrous effect. Too much timber is used in our modern buildings. I think the day is not far distant, when the nature and properties of iron will be better understood, and it will, in a great measure, supersede the only perishable material used in building constructions. Much of the unhealthiness of towns arises from the dirty and filthy habits of the lower orders of the inhabitants, who are allowed either to accumulate their filth and refuse matter on their own confined premises, or to deposit it in the streets, to the great annoyance of their neighbours, and to the unhealthiness of the district they reside in.

In every town, provision should be made for the collection and disposition of this refuse matter, and every means should be taken to instil into the minds of the lower orders habits of order, cleanliness, and decency. I think health officers, or inspectors of nuisances, should be appointed in every town for the purpose of aiding in the suppression of these abominable practices, and power should be given by the Legislature to inflict penalties on all who do not conform to regulations of cleanliness and decency. Slaughter-houses are often times great nuisances in towns, the stench arising from them being intolerable. These I think should be built on a plan and site favourable for drainage, and detached from dwelling-houses, which is very rarely the case.

Macadamized roads in towns I think are not desirable on the score of health, because in dry seasons every one must have suffered from the inconvenience arising from the dust, and in wet weather mud and dirt predominate. The same objection applies as to dust, to road surfaces formed of broken stone, profusely intermixed with asphaltum, alluded to in your journal (p. 263, ante), which has been extensively used at Nottingham. This material, moreover, is readily operated on by the rays of the sun, which render it soft and elastic, and thereby increase the force of traction, and consequently the labour of horses in draught.

Streets cannot be too frequently swept, and I think Whitworth's machine is a decided improvement on the old system, inasmuch as the dust is swept up and carried away immediately, whereas formerly the dust and filth was allowed to remain in the streets a considerable time, giving off offensive and noxious gases. In dry seasons the streets should be invariably

* A notice of this bill, since brought in, will be found in another page.